AAAS
ADVANCING SCIENCE, SERVING SOCIETY

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ATTN: Scientific Integrity Recommendations
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I am writing to communicate the views of the American Association for the Advancement of Science (AAAS), the world's largest general scientific society, on the Office of Science and Technology Policy's (OSTP) request for public comment on the Presidential Memo on Scientific Integrity published in the *Federal Register* on April 23, 2009.

AAAS has a long history of analyzing and providing scientific input into the policy making process, and is committed to protecting and defending the integrity of science and its use in public policy. Moreover, as the publisher of the world's preeminent scientific journal, *Science*, AAAS is committed to upholding the values of scientific peer review and to ensuring to the maximum extent possible the quality of information in support of the conduct of research as well as the dissemination of research results.

We applaud the President and OSTP for recognizing the importance of protecting the integrity of science. By promoting the responsible use of science and providing a voice for science in critical societal issues, the Administration is taking a critical step towards strengthening the scientific enterprise and the public policy process.

Before addressing each principle outlined in the Presidential Memo and *Federal Register* notice, we would like to address some broad comments that intersect all six principles.

Terminology and Definitions. First, the memo applies to "policy" and not simply regulatory policy. This is a much broader sweep than the OMB guidelines on peer review issued in 2004. OSTP should provide clear definitions when it issues its recommendations so that the scope of any proposed action is clear to all. Second, OSTP should provide guidance to the agencies as to what it considers to be "scientific integrity" as some agencies may not distinguish that term from "research integrity" which addresses the conduct of research. OSTP has responsibilities in both domains, of course, but for this purpose we believe the guidance should be restricted to scientific integrity.

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Conflict of Interest. The subject of conflict of interest is implied in each of the six principles and is a topic of great importance in the context of public trust in science. Such conflicts may affect not only the service of scientists as civil servants, but also their service on government advisory committees, as well as the conduct of peer-review. AAAS encourages OSTP to review individual and institutional conflict of interest recommendations issued by other organizations (e.g., NAS, IOM, AAU, AAMC) as it develops these scientific integrity guidelines. At the same time, some agencies (e.g., NIH) are conducting their own assessment of how they should address conflict of interest. OSTP's forthcoming recommendations should, to the extent possible, be consistent with measures being developed by other parts of the federal government and the broader scientific community.

Principles:

(a): The scope of this principle is unclear. It states that it addresses the "selection and retention of candidates for science and technology positions in the executive branch." However, is it OSTP's intent to address S&T employees in the federal government, S&T appointments to federal advisory committees, or both?

As to the matter of evaluating candidates on the basis of their "knowledge, credentials, experience and integrity," how will a candidate's "integrity" be assessed? Knowledge, credentials and experience are fairly easy to determine, but there may be quite different perspectives on how to define and assess an individual's integrity. OSTP should clarify what it means by the term "integrity" (e.g., professional vs. personal), and how government agencies should apply it when evaluating candidates. We caution against creating a burden that could discourage candidates from public service.

(b): This principle requires that each agency have "appropriate rules and procedures to ensure the integrity of the scientific process". It is unclear what is meant by the "scientific process". Does it refer to the conduct of research funded by the federal government at laboratories, universities and industry? Is it the process of utilizing science in policy making? Greater clarity is needed from OSTP before federal agencies begin the process of developing such rules.

Furthermore, it is unclear whether OSTP is expecting a uniform set of rules and procedures or will allow federal agencies the flexibility to define their own set of rules and procedures. AAAS encourages OSTP to provide guidance as to how each agency's plans will be vetted and approved. Finally, in the interest of fostering transparency, we recommend that each agency be required to submit its proposed plans and procedures for ensuring the integrity of the scientific process for public comment in the *Federal Register*.

(c): This principle requires that when "scientific or technological information is considered in policy decisions, the information should be subject to well-established scientific processes, including peer-review." OSTP should consider clarifying the term peer review, which may be different in the context of scientific publication as opposed to the synthesis of a body of scientific research that may be used to develop government policy.

Furthermore, OSTP should clarify circumstances or thresholds where formalized scientific peer-review would not be required. For example, in the event of a public health or national security crisis that involves the assessment of scientific information or data, the federal government will likely need to weigh the risks and benefits of bypassing the peer-review process in order to meet an urgent public health emergency. That said it is still vital that in these instances some level of review be conducted by high-level representatives (scientists and policy-makers) of the government.

(d): OSTP is requesting that agencies "make available to the public [S&T] findings or conclusions considered or relied on in policy decisions." What is meant by "considered or relied on"? If an agency considered research findings but ultimately did not use them in its final policy decision, would the agency still be required to release that information? It is also unclear what types of information agencies are expected to release.

Finally, AAAS recommends that in instances where a Scientific Advisory Committee has been consulted for developing a policy decision, OSTP and the agencies should take great care to avoid publicly attributing comments to the committee's individual members. While transparency is a laudable goal, the ability of federal agencies to receive the best available advice could be severely hampered if scientists are reluctant to participate in peer review or offer candid critiques.

(e): Here agencies are tasked to develop ways to "identify and address instances in which the scientific process or the scientific integrity of the [S&T] information may be compromised." This may be the most critical of all the principles, thus there needs to be clarity on how this is defined. What might trigger agencies to implement this principle? What factors would go into a determination of when the process or information has been compromised (e.g., typographical error vs. removal of critical data)? What happens after an incident has been identified where information may be comprised? How much detail will be made publicly available?

(f): For many years the government has attempted to address whistleblower protection, with mixed (some would say failed) results. AAAS recommends that OSTP consider three steps to addressing this subject: 1) evaluate all existing federal whistleblower protections to determine their strengths and weaknesses as well as applicability to scientific integrity; 2) based on the assessment, adopt a set of whistleblower protections that would apply across the federal government; and 3) establish an appeals process within the federal government for complaints lodged by whistleblowers regarding inadequate protection or retaliation from within the agencies.

We hope that these initial comments are helpful as OSTP develops its recommendations, and we stand ready to work with you and the federal agencies as you develop your guidelines for protecting scientific integrity within the executive branch. If you have any questions, please do not hesitate to contact me at 202-326-6639 or aleshner@aaas.org.

Sincerely,

Alan I. Leshner